

67. (New) The article of claim 15, wherein the at least one deliverable or non-deliverable substance is in the form selected from the group consisting of solids, liquids, gels, pastes, foams, powders, agglomerated particles, microencapsulated liquids, suspensions, and combinations thereof.

A version marked up to show changes made to the claim(s) relative to the previous version of the claim(s) is attached.

Remarks

Claims 1 to 55 are pending. Claims 9, 18 and 24 have been cancelled. Claims 36 to 52 have been withdrawn from consideration. Claims 1, 8, 25, 53 and 54 are amended. Claims 56 to 67 have been added.

Election/Restrictions

Applicants acknowledge that Claims 36-52 have been withdrawn from consideration and Application will cancel such claims when the claims under consideration have been allowed.

Claim Objection under 37 C.F.R. § 1.75(c)

The Examiner has objected to claim 24 under 37 C.F.R. 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim, or amend the claim to place it in proper dependent form, or rewrite the claim in independent form. Claims 22 and 24 recite the same limitation "the second major surface is a non-structured surface."

Please cancel Claim 24, without prejudice.

Rejection under 37 C.F.R. § 112, second paragraph

Claims 1-35 and 53-55 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter, which Applicant regards as the invention.

The Examiner asserts the recitations of "structured" and "non-structured" in claims 1, 6, 8, 9, 18, 20-24, 27-29, 53 and 54 are deemed vague and indefinite.

"Structured" adhesive are described on page 15 lines 11-22. The structures are described in U.S. Patent Nos. 6,197,397 (Sher et al.) and 6,123,890 (Mazurek et al.). Structures are the three dimensional topography created in the adhesive layer by contacting it against a tool or a

liner that has the inverse topographical pattern of the adhesive in it. Specific structures are described on page 7, lines 8-18, the structured topography includes specific shapes that form a plurality of discrete reservoirs or channels. Also structures are described on page 5, lines 15-20 in which structures and land areas are described and illustrated in Fig. 1B. "Non-structured" refers to adhesives that are generally flat and may have surface roughness, but do not have a structured topography, i.e., a pattern of structures, specifically imparted onto the surface.

A "laminate", as used in the application, is a structure formed by joining two or more layers together in a substantially planar fashion to form an article (Page 5, lines 3-24). The cap layer of Claim 19 may be a laminate of two or more layers of materials laminated together to form the cap layer.

The Examiner feels there is insufficient antecedent basis for the limitation of "the adhesive layers" in line one of claim 6.

Applicants have provided sufficient antecedent basis for claim 6.

In summary, Applicant submits that the rejection of claims 1-35 and 53-55 under 35 U.S.C. § 112, second paragraph, has been overcome, and that the rejection should be withdrawn.

Rejection under 35 U.S.C. § 102 (b)

Claims 1-9, 11, 18-20, 22, 24, 26 and 27 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Goepfert et al. (U.S. Patent No. 2,667,436).

Goepfert et al. does not disclose a cap layer. Fig. 3, #3 is a protective sheet that is removed so that the adhesive can be adhered to a surface. The cap layer of the invention is an integral part of the article and is defined on page 10, lines 7-9 as "preferably a substantially continuous layer that can be, for example, a structured or non-structured backing, a structured or non-structured adhesive layer, a membrane, or the like." Further, "the term 'backing' refers to a thin sheet, which, after being placed in intimate contact with the adhesive, cannot be subsequently removed without damaging adhesive coating" (See page 10, lines 16-19). The cap layer of the invention is permanently attached to the adhesive and is generally not removable from it without damaging the adhesive coating. In Goepfert et al., col. 3, lines 40-44, #3 of Fig. 3 is described as a "protective sheet of polyethylene 3. Since Goepfert et al do not disclose a cap layer as disclosed and claimed in the present invention, Goepfert et al. fail to anticipate Claims 1-9, 11, 18, 20, 22, 24, 26, and 27.

Claims 28, 30, and 33-35 stand rejected under 35 U.S.C. 102(b) as being anticipated by Calhoun et al. (U.S. Patent No. 5,888,650).

Calhoun ('650) discloses a laminate with a non-adhesive carrier web between the two adhesive layers. The adhesives are thermomorphing and will form into structured adhesives upon heating. The present invention claims two structured adhesive layers laminated together (See Figures 5C, 6A-C and 12A-C). Contrary to the disclosure stated by the Examiner, Calhoun ('650) fails to anticipate the present invention.

Claims 53-55 stand rejected under 35 U.S.C. 102(b) as being anticipated by Calhoun (U.S. Patent No. 5,087,494).

In Figure 1, Calhoun ('494) describes an adhesive layer 18 that is coated onto a disposable carrier web 12 having dimples 14. The disposable carrier web has a low adhesive face (col. 6, line 44) so that the adhesive can be removed from it. In contrast to the disclosure of Calhoun ('494), the cap layer of the present invention is permanently attached to the structured surface. Failure to disclose this element of the invention proves a fatal flaw for Calhoun ('494) and as such Calhoun ('494) fails to anticipate the present invention.

The rejection of claims under 35 U.S.C. § 102(b) as being anticipated by Goepfert et al. ('436), Calhoun et al. ('650), and Calhoun et al. ('494) has been overcome and should be withdrawn.

Rejection under 37 C.F.R. § 103(a)

Claims 10, 12, 14, 15, and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Goepfert et al. (U.S. Patent No. 2,667,436) in view of Hata (WO97/33946).

Goepfert does not disclose a cap layer as defined by the invention, which is a layer that is permanently attached to the structured surface.

Additionally, Hata does not disclose a cap layer having an exposed surface that is non-structured. Hata shows the tape attached to a substrate in Fig 3A, but the substrate is not a cap layer.

There is no reason to combine Goepfert with Hata. Neither one teaches to fill the reservoirs or channels in the adhesive, and each has a different objective in their structures. There is no teaching in either Goepfert or Hata to fill the channels or reservoirs with a material other than air. Goepfert needs the channels open for air escape to prevent blisters formed by entrapped air (Col 2, lines 24-26).

The reservoirs in Hata are desirably open to contain air so that the material can be used for cushioning and/ or absorbing energy, e.g., sound, vibration, heat (Background section of Hata). There is no reason for Hata to fill the reservoirs as this could detract from the energy absorbing characteristics of the sheet and add weight, which is generally not desirable in cushioning materials.

Additionally, adding materials to the reservoirs and channels of Goepfert or Hata can affect the adhesive properties.

Claims 13, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goepfert et al. (U.S. Patent No. 2,667,436) in view of Sher et al. (U.S. Patent No. 6,197,397).

The deliverable on non-deliverable substances of the present invention are contained within the reservoirs or channels until the material is used, that is, the substances are packaged within the reservoirs and channels. Goepfert would not want to fill his channels because he needs the channels to be open to provide air escape.

Sher et al. teach not to fill the channels between the adhesive structures with something to be dispensed and used later. However, a fluid is used to affect the adhesive interface such as to facilitate removal of the substrate with the adhesive on it. Once fluid flows into the channels of Sher et al., the adhesive properties are affected such that they will release from the surface and subsequently removed.

Claims 21 and 23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Goepfert et al. (U.S. Patent No. 2,667,436) in view of Calhoun et al. (U.S. Patent No. 5,888,650).

Goepfert et al. do not disclose a cap layer and Calhoun et al. do not cure this defect.

Claim 31 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Calhoun et al. (U.S. Patent No. 5,888,650) in view of Goepfert et al. (U.S. Patent No. 2,667,436).

Calhoun et al. do not have a cap layer and Goepfert et al. do not have a cap layer as defined by the invention. Since neither reference teaches a cap layer, it is difficult to understand how the combination would teach this element of the claims of the present invention.

The rejection of claims under 35 U.S.C. § 103(a) as being unpatentable over Goepfert et al. in view of Hata, Goepfert in view of Sher et al., Goepfert et al. in view of Calhoun et al. ('650) or Calhoun et al. ('650) in view of Goepfert et al. fail to make the present invention unpatentable and all such rejections should be withdrawn.

Allowable Subject Matter

Application No.: 09/974,710

Case No.: 55526US003

Claims 29 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants have not amended Claims 29 and 32 at this time, since Applicants believe Claim 28 is allowable in view of the above response.

In view of the above, it is submitted that the application is in condition for allowance. Reconsideration of the application is requested.

Allowance of claims, as amended, at an early date is solicited.

Respectfully submitted,

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Date

By:

Carolyn V. Peters

Carolyn V. Peters, Reg. No.: 33,271

Telephone No.: (651) 736-7929

FAX RECEIVED
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Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833

Version with markings to show amendments made:

1. (Amended) An article comprising at least one adhesive layer with a first major surface and a second major surface, wherein at least one of the first and second major surfaces is a structured surface; and a cap layer in contact with [a] the exposed structured surface(s) of [an] the adhesive layer wherein the exposed surface of the cap layer is unstructured.

6. (Amended) The article of claim 2, wherein the adhesive layer[s] are selected from the group consisting of structured or non-structured adhesive layers] is either a structured adhesive layer or a non-structured adhesive layer.

8. (Amended) The article of claim 1, wherein the article comprises a non-structured [structured] exposed surface.

25. (Amended) The tape of claim [24] 22, wherein the tape has a peel strength of at least 21-42 oz/0.5 inch for a thickness of 0.003 to 0.007 inches.

53. (Amended) An article comprising at least one first layer with a first major surface and a second major surface, wherein at least one of the first and second major surfaces is a structured surface; and a cap layer in contact with a structured surface of the first layer, wherein the cap layer comprises an adhesive having a non-structured exposed surface.

54. (Amended) The article of claim 53, wherein the cap layer is non-structured on both surfaces.

56. (New) An article comprising at least one adhesive layer with a first major surface and a second major surface, wherein at least one of the first and second major surfaces is a structured surface, and the structure surface comprises a plurality of discrete reservoirs, wherein the volume of each is less than about 20 nL.

57. (New) The article of claim 56, wherein each reservoir having a void volume of less than about 4L.

58. (New) The article of claim 56 wherein said reservoirs contain at least one deliverable or non-deliverable substance.

59. (New) The article of claim 12, wherein the at least one deliverable or non-deliverable substance is selected from hormones, antibiotics, antimicrobials, antifungal agents, lotions, ointments, indicators, proteins, inks, dyes, drugs, and vibration-damping fluids.

60. (New) The article of claim 12, wherein the at least one deliverable or non-deliverable substance is in the form selected from the group consisting of solids, liquids, gels, pastes, foams, powders, agglomerated particles, microencapsulated liquids, suspensions, and combinations thereof.

61. (New) The article of claim 13, wherein the at least one deliverable or non-deliverable substance is selected from hormones, antibiotics, antimicrobials, antifungal agents, lotions, ointments, indicators, proteins, inks, dyes, drugs, and vibration-damping fluids.

62. (New) The article of claim 13, wherein the at least one deliverable or non-deliverable substance is in the form selected from the group consisting of solids, liquids, gels, pastes, foams, powders, agglomerated particles, microencapsulated liquids, suspensions, and combinations thereof.

63 (New) An article comprising at least one adhesive layer with a first major surface and a second major surface, wherein at least one of the first and second major surfaces is a structured surface, and the structure surface comprises a plurality of channels filled with a deliverable or non-deliverable substance.

64. (New) The article of claim 63, wherein the at least one deliverable or non-deliverable substance is selected from hormones, antibiotics, antimicrobials, antifungal agents, lotions, ointments, indicators, proteins, inks, dyes, drugs, and vibration-damping fluids.

65. (New) The article of claim 63, wherein the at least one deliverable or non-deliverable substance is in the form selected from the group consisting of solids, liquids, gels, pastes, foams, powders, agglomerated particles, microencapsulated liquids, suspensions, and combinations thereof.

66. (New) The article of claim 15, wherein the at least one deliverable or non-deliverable substance is selected from hormones, antibiotics, antimicrobials, antifungal agents, lotions, ointments, indicators, proteins, inks, dyes, drugs, and vibration-damping fluids.

67. (New) The article of claim 15, wherein the at least one deliverable or non-deliverable substance is in the form selected from the group consisting of solids, liquids, gels, pastes, foams, powders, agglomerated particles, microencapsulated liquids, suspensions, and combinations thereof.